

RECEIVED

Please replace paragraph [0026] with the following amended paragraph: ${}^{SEP}_{1700}$

[0026] FIG. 2 is a top perspective view of one embodiment of a vacuum lid assembly 20. The vacuum lid assembly 20 includes a lid 20a and a process fluid injection assembly 30 to deliver reactive, carrier, purge, cleaning and/or other fluids into the processing chamber 16. Lid 20a includes opposing surfaces 21a and 21b. The fluid injection assembly 30 includes a gas manifold 34 mounting a plurality of control valves, 32a, 32b and 32c, and a baffle plate 36 (shown in FIG. 3). Valves 32a, 32b and 32c provide rapid and precise gas flow with valve open and close cycles of less than about one second, and in one embodiment, of less than about 0.1 second. In one embodiment, the valves 32a, 32b and 32c are surface mounted, electronically controlled valves. One valve that may be utilized is available from Fujikin of Japan as part number FR-21-6.35 UGF-APD. Other valves that operate at substantially the same speed and precision may also be used.

Please replace paragraph [0030] with the following amended paragraph:

[0030] FIGS. 3 and 4 are partial sectional views of the vacuum lid assembly 20. The gas manifold 34 includes a body defining three valve mounting surfaces 59, 61, 64 (mounting surface 64 is shown in FIG. 4) and an upper surface 63 for mounting an upper valve 65. The gas manifold 34 includes three pairs of gas channels 67a, 67b, 69a, 69b, 71a, 71b (71a and 71b are shown on FIG. 4) that fluidly couple the two process gases and a purge gas (shown as fluid sources 68a-c in FIG. 9) to the interior of the processing chamber 16 controllably through the valves 32a, 32b, 32c, thereby allowing thermal conditioning of the gases by the gas manifold 34 before reaching the valves 32a, 32b, 32c. Gas channels 67a, 69a, 71a (also termed thermal conditioning channels) are fluidly coupled to the connectors 45, 47, 57 and provide passage of gases through the gas manifold 34 to the valves 32a, 32b, 32c. Gas channels 67b, 69b and 71b deliver gases from the valves 32a, 32b, 32c through the gas manifold 34 and into a gas channel 71b delivers gas from the valve 32c through the gas manifold 34 and into a gas

channel 73 passing through a member 26. The channels 67b, 69b and 73 are fluidly coupled to a respective inlet passage 302, 304 and 306 disposed through the lid 20a. Gases or other fluids flowing through the inlet passages 302, 304 and 306 flow into a plenum or region 308 defined between the lid 20a and baffle plate 36 before entering the chamber 16.